# PART D TRANSPORTATION OF EXPLOSIVE MATERIALS

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Note: Requirements for transportation of blasting agents are located at WAC 296-52-67145, Transportation of blasting agents.

#### **SCOPE**

WAC 296-52-68010 Public highways. Transportation of explosives on public highways are:

- Regulated by:
  - United States Department of Transportation (U.S. DOT) (49 CFR, Parts 100 199)
  - The Washington utilities and transportation commission
- Administered and enforced by the Washington state patrol.

WAC 296-52-68015 Job sites and off highway roads. The transportation rules in this chapter apply to:

- On job sites and off highway roads
- Privately financed, constructed, or maintained roads

*Note:* These rules do not apply to state or interstate highway systems.

### WAC 296-52-68020 Safety precautions. No one may:

- Smoke or carry matches, or any other flame producing device, while in or near a vehicle transporting explosives
- Carry firearms or ammunition while in or near a vehicle transporting explosives, except guards or commissioned law enforcement officers
- Drive, load, or unload a vehicle transporting explosives in a careless or reckless manner.

**WAC 296-52-68025 Transportation of workers.** Only the driver and two additional people are allowed in vehicles transporting explosives. Explosives cannot be carried when additional workers are being transported.

**WAC 296-52-68030 Cargo.** Materials and supplies cannot be placed in the cargo space of vehicles or conveyance containing:

- Explosives
- Detonating cord

OR

Detonators.

Note: It is okay to transport safety fuses and properly secured nonsparking equipment in cargo spaces.

#### TRANSPORTATION VEHICLES

WAC 296-52-68040 Vehicle strength and condition. All vehicles used for transporting explosives must:

- Be strong enough to carry the load without difficulty
- Be in good mechanical condition
- Have a tight floor in the cargo compartment(s)
- Not have any exposed spark producing metal inside the vehicle, which could come in contact with explosives.

#### WAC 296-52-68045 Open top vehicles.

- (1) **Locations of use.** While loaded with explosives, open top vehicles must only be used on:
  - The job site OR
  - Roads that are closed to public travel
- (2) **Containers.** Explosives being transported in open top vehicles or trailers must be transported in:
  - The original U.S. DOT approved shipping container or box
     OR
  - A day box or portable magazine that complies with the requirements of this chapter
- (3) **Securing containers.** Explosive containers, boxes, day boxes, or portable magazines must be fastened to the bed of the vehicle or trailer.
- (4) **Loading.** Packages of explosives cannot be loaded above the sides on open top vehicles.
- (5) **Tarpaulins** (tarps).
  - If an explosives transportation vehicle or trailer does not have a fully enclosed cargo area with nonsparking interior, the cargo bed and all explosive cargo must be covered with a flame and moisture proof tarp or other effective protection against moisture and sparks
  - Whenever tarps are used for covering explosives, both the tarp and the explosives container must be fastened to the body of the truck bed with rope, wire, or other equally efficient tie downs.

**WAC 296-52-68050 Vehicle placards.** All vehicles transporting explosives material must have placards. They must:

- Be displayed as specified by U.S. DOT
- Remain on the vehicle until all explosives have been removed.

## WAC 296-52-68055 Vehicle fire protection.

- (1) **Fire extinguishers.** 
  - Driver training. The driver must be trained to use the fire extinguishers on the vehicle
  - **Equipment specifications.** Vehicles used for transporting explosive materials must be equipped with fire extinguishers according to the gross vehicle weight:
    - Less than 14,000 pounds: A minimum of two multipurpose dry-chemical extinguishers having a combined capacity of at least 4-A:20-B:C
    - 14,000 pounds or greater: A minimum of two multipurpose drychemical extinguishers having a combined capacity of at least 4-A:70-B:C
  - **Laboratory approval.** Only fire extinguishers approved by a nationally recognized testing laboratory can be used on vehicles carrying explosives
  - Condition and location. Fire extinguishers must be filled, ready for immediate use, and easily reached
  - **Inspection.** A competent person must inspect fire extinguishers periodically. You must comply with the requirements of WAC 296-800-30020, Inspect and test all portable fire extinguishers.

## WAC 296-52-68055 (Cont.)

- (2) **Vehicle inspection.** Any motor vehicle used for transporting explosives must have a safety inspection. The inspection must verify that:
  - Fire extinguishers are filled and in working order
  - All electrical wiring is protected and securely fastened to prevent short circuiting
  - Chassis, motor, pan, and underside of body are reasonably clean and free of excess oil and grease
  - Fuel tank and feedline are secure and have no leaks
  - Tires are checked for proper inflation and defects
  - Brakes, lights, horn, windshield wipers, and steering apparatus are functioning properly
  - The vehicle is in proper condition in every other respect and acceptable for handling explosives
- (3) **Vehicle repair/servicing.** Motor vehicles or conveyances carrying explosives, blasting agents, or blasting supplies cannot be repaired or serviced inside a garage or shop when carrying explosive material.

#### WAC 296-52-68060 Operation of vehicles transporting explosives.

- (1) **Authorized explosives transportation.** Explosives may only be transported by a:
  - Licensed manufacturer
  - Blaster
  - Purchaser, seller, or their designated representative
  - Contract carrier for hire who complies with all requirements for transportation of hazardous materials
- (2) **Driver qualifications.** 
  - (a) Vehicles transporting explosives must be driven by a responsible licensed driver who is:
    - At least twenty-one years old
    - Physically fit
    - Careful
    - Capable
    - Reliable
    - Able to read and write the English language
    - Not addicted to or under the influence of intoxicants, narcotics, or other dangerous drugs. (This does not apply to people taking prescription drugs and/or narcotics as directed by a physician, as long as use of the prescription drug does not endanger the worker or others.)
  - (b) The driver must be:
    - Familiar with all:
      - Traffic regulations
      - Department of Transportation (U.S. DOT) and other state laws in the transportation of explosives and hazardous material laws

### WAC 296-52-68060 (Cont.)

- Aware of:
  - What they are carrying
  - Safety precautions for the explosives being transported
- (3) **Parking Division 1.1 or 1.2 explosives.** A vehicle that contains Division 1.1 or 1.2 explosives cannot be parked:
  - On or within five feet of the traveled portion of a public street or highway
  - On private property, including fueling or eating facilities, without the knowledge and consent of the person. The person in charge must be aware of the hazardous materials in the vehicle.

OR

• Within three hundred feet of a bridge, tunnel, dwelling, building, or place where people work, congregate, or assemble

Exemption: These restrictions do not apply when:

- Routine operations require the vehicle be parked for a brief period of time
- It is impractical to park the vehicle any other place
- (4) **Vehicle attendance.** A vehicle transporting any quantity of Division 1.1 or 1.2 explosives must be attended at all times by a driver or other representative of the vehicle carrier, exceptions are:
  - A vehicle containing explosive materials may be left unattended for a period not to exceed forty-eight hours provided:
    - The vehicle is parked in a designated parking lot, which complies with NFPA Std. 498 and the appropriate distance table for the type and quantity of explosives.
  - The parking lot must:
    - Be correctly bermed, walled, or fenced, and gated to prevent unauthorized entry
    - Be inspected and approved by the department
    - Provide a full-time, continuous security patrol when explosives are present
  - An explosives delivery truck does not need to be attended when it only contains Division 1.5 and no high explosives, provided the:
    - Vehicle is locked so it cannot be moved
    - Cargo compartments are locked to prevent theft
    - Vehicle is parked according to all applicable storage distance requirements
    - Vehicle is located in a secured area that restricts entry of unauthorized personnel
- (5) **Attendant.** 
  - (a) An authorized attendant must be physically present and able to see the explosives at all times.
  - (b) In an emergency, the attendant must be able to quickly get to the explosives without interference.

#### WAC 296-52-68060 (Cont.)

- (c) The attendant must:
  - Be awake
  - Be alert
  - Not be engaged in activities, which could divert their attention
  - Be aware of the division of the explosive material and its dangers
  - Be instructed in the methods and procedures used to protect the public
  - Be familiar with the particular vehicle being driven
  - Be trained in the use of the vehicle
  - Have authorization and be able to move the vehicle if required
- (6) **Loading precautions.** A vehicle must comply with U.S. DOT loading regulations in order to transport explosives in the same vehicle body with the following items:
  - Spark producing metal
  - Spark producing tools
  - Oils
  - Matches
  - Firearms
  - Electric storage batteries
  - Flammable substances
  - Acids
  - Oxidizing materials

OR

- Corrosive compounds
- (7) **Congested areas.** Vehicles transporting explosives must avoid congested areas and heavy traffic.
- (8) **Disabled vehicles.** 
  - A qualified person must be present before explosives can be transferred from a disabled vehicle to another vehicle
  - If a vehicle becomes disabled in a congested area, you must promptly notify local fire and police authorities. In a remote area they may be notified if necessary.
- (9) **Explosives delivery and issue.** Delivery and issue of explosives must be made:
  - Only by and to authorized people
  - Into authorized magazines or authorized temporary storage or handling areas.

### WAC 296-52-68065 Transporting detonators and explosives in the same vehicle.

- (1) Fuse type detonators, detonators with a safety fuse, or detonators with a metal clad mild detonating fuse, cannot be transported in the same vehicle or trailer with other explosives, unless they comply with U.S. DOT hazardous material regulations for:
  - Packaging
  - Separation
  - Transportation

#### WAC 296-52-68065 (Cont.)

- (2) Detonators rated as nonmass detonating by U.S. DOT may be transported in the same vehicle or trailer with other explosives when the:
  - Detonators are carried in U.S. DOT approved shipping containers
  - Truck or trailer complies with the requirements of IME Safety Library Publication Number 22, May 1993.

**WAC 296-52-68075 Powder cars, vehicles, and conveyances.** In underground blasting operations, explosives and blasting agents must be hoisted, lowered, or transported in a powder car.

- (1) **State approval.** A state-approved powder car or conveyance must be used underground.
- (2) **Two-unit compartments.** Compartments for transporting detonators and explosives together on the same conveyance must be physically separated by a:
  - Distance of twenty-four inches
     OR
  - Solid partition a minimum of six inches thick
- (3) Auxiliary lights prohibited. Auxiliary lights that are powered by an electrical system on a truck bed are prohibited.
- (4) **Daily inspection.** The powder car or conveyance must be inspected daily for:
  - Properly working lights
  - Properly working brakes
  - External damage to electrical circuitry
- (5) **Weekly inspection.** Weekly inspections must:
  - Be conducted on the electrical system, to assess electrical hazards
  - Include a written inspection certification record that:
    - Contains the date of inspection, the serial number, or other positive identification of the unit being inspected, and the signature of the person performing the inspection
    - Is kept on file for the duration of the job
- (6) **Explosives warning sign.** Powder cars or conveyance built for transporting explosives or blasting agents must have signs posted on each side of the car that:
  - State "EXPLOSIVES"
  - Use letters a minimum of four inches high
  - Have a background color that sharply contrasts with the letters.

**WAC 296-52-68080 Notification--Hoist operator.** Hoist operators must be notified before explosives or blasting agents are transported in a shaft conveyance.

## WAC 296-52-68085 Underground transportation.

- (1) **Explosives and blasting agents.** These requirements must be followed when transporting explosives and blasting agents underground:
  - Companion items.
    - Explosives or blasting agents cannot be transported in the same shaft conveyance with other materials, supplies, or equipment
    - Detonators and other explosives cannot be transported in the same shaft conveyance
  - **Manual transportation.** Explosives or blasting agents that are not in their original containers must be placed in a suitable container when transported manually
  - **Car or conveyance.** The car or conveyance containing explosives or blasting agents must be pulled and not pushed
  - Locomotives. Explosives or blasting agents must:
    - Not be transported on any locomotive
    - Be separated by a minimum of two car lengths from the locomotive
  - Riding on a conveyance. When transporting explosives or blasting agents, no one can ride on:
    - A shaft conveyance

OR

- Any other conveyance, except the operator, helper, or powder person
- Crew haul trips. Explosives or blasting agents cannot be transported on a crew haul trip
- **Disposition arrival.** All explosives or blasting agents that are transported underground must immediately be taken to the place of use or storage.
- (2) **Quantity limit.** The quantity of explosives or blasting agents taken to an underground loading area cannot exceed the amount estimated to be necessary for the blast.
- (3) Unloading primers at the blast site. Primers must be:
  - Unloaded after drilling has been completed and the holes in the round are ready for loading
  - Unloaded from the powder car at the face or heading
  - Removed from the powder car for only the exact number being used for the round
  - The powder car must be removed from the tunnel after the charge has been loaded
- (4) **Electric detonators.** Wires on electric detonators must be kept shunted until wired to the bus wires.